(ii) **Peer to Peer 802.11b based Mesh Network**

The project at IIT Chennai aims at setting up an 802.11b based mesh network for connecting rural areas to provide high bandwidth connectivity at a low cost. The challenge is to design a peer-to-peer 802.11b based mesh network and deploy it in a scalable way. The design emphasizes on (i) Mesh Networking (ii) Effective Antenna and Base-band Systems tailored for typical inter-village distances in India (iii) High Availability of Communications (iv) Security of Routing.

Telephone Density in urban and rural areas of Tamil Nadu

927. SHRI S.P.M. SYED KHAN: Will the Minister of COMMUNICATIONS AND INFORMATION TECHNOLOGY be pleased to state:

(a) the average telephone connection per family in urban and rural settlements in Tamil Nadu;

(b) the details regarding the rural settlements in Tamil Nadu which do not have telephone facility; and

(c) the targets for providing telephone facility in the rural/urban areas of Tamil Nadu for the years 2003-04 and 2004-05?

THE MINISTER OF STATE IN THE MINISTRY OF COMMUNICATIONS AND INFORMATION TECHNOLOGY (DR. SHAKEEL AHMAD): (a) The average telephone connections provided by BSNL per 100 population (Teledensity) of urban and rural settlements in Tamil Nadu as on 30-06-2004 is given below:

Name of State	Teledensity	
	Rural	Urban
Tamil Nadu	2.20	10.93

(b) BSNL has provided telephones facilities in all revenue villages (as per 1991 census) in Tamil Nadu Circle.

(c) The target for providing telephone facility which includes fixed lines, WLL and Cellular mobile phones in the rural/urban area of Tamil Nadu during the years 2003-04 and 2004-05 are given below:

Parameter	2003-04		2004-05	
	Rural	Urban	Rural	Urban
DELs	53000	252000	105000	443600

Fulfilment of obligation by private operators

928. SHRI K. CHANDRAN PILLAI: Will the Minister of COMMUNICATIONS AND INFORMATION TECHNOLOGY be pleased to state:

(a) whether it is a fact that the license agreement with private operators stipulated that basic telecom service operators were to provide a minimum of 10 per cent of their total commitments as VPTs;

(b) if so, whether the private operators have fulfilled their obligations since the operation commenced;

(c) if so, the details thereof;

(d) if not, the loss incurred by Government in this respect alongwith the action taken against the defaulting operators; and

(e) the details thereof?

THE MINISTER OF STATE IN THE MINISTRY OF COMMUNICATIONS AND INFORMATION TECHNOLOGY (DR. SHAKEEL AHMAD): (a) to (e) The six private basic telephone service operators, who were granted licences in 1997-98, were to provide a fix number of Village Public Telephones (VPTs) in their respective service area. The details of VPTs provided by the six private operators as on 31-10-2003 are given in the Statement (*See* below). Consequent to announcement of Unified Access Service Licence regime, the six private basic telephone service operators have migrated to Unified Access Service Licence regime in November 2003 and thereby the roll out obligations have changed to coverage of District Headquarters instead of provisioning of fixed number of Direct Exchange Lines (DELs) and VPTs. The Government has recovered liquidated damages to the tune of Rs. 53.75 crores from these six private basic telephone service operators for non-fulfilment of roll out obligations in terms of commencement of service as well as in provisioning of DELs and VPTs.